

**SAF-RC-001**  
**Industrial Hygiene Sampling**  
**FINAL DATA**

**NO DISTRIBUTION REQUIRED**

**COMMENTS:**

SDG 06I-0181-02 SAF-RC-001

Rad only   ☒   Chem only   Rad & Chem

☒ Complete   Partial

**300 Area 303M Bldg**

**RECEIVED**  
APR 24 2006  
**EDMC**



## Cover Page

Page 1 of 7



Report Identification Number: 06I-0181-02  
Subcontract Number: 0000X-BO-G0058-B-Mod#4  
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby  
Laboratory Identification Number: DCHM  
SAF#: RC-001 / R303M0 J451  
Payroll#: 73513

### Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
16 Jan 2006	J10RR9	06I01518	NMAM 7300M	G060K00K	G WIPE
16 Jan 2006	J10WP2	06I01519	NMAM 7300M	G060K00K	G WIPE
16 Jan 2006	J10X05	06I01520	NMAM 7300M	G060K00K	G WIPE

I certify that this electronic image and all hardcopies produced from this image accurately represent the data and are in compliance with the contract specific requirements, both technically and for completeness, other than the conditions detailed above or in the sample data package narrative. Release, by submission through email, the data contained in this electronic image and the computer-readable EDD (as applicable), has been authorized by the laboratory Manager or the Manager's designee.

Name: Lisa M. Reid  
Title: Chemist  
Date: January 19, 2006



## Case Narrative Page

Page 2 of 7

Report Identification Number: 06I-0181-02  
Subcontract Number: 0000X-BO-G0058-B-Mod#4  
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby  
Laboratory Identification Number: DCHM  
SAF#: RC-001 / R303M0 J451  
Payroll#: 73513

**General Set Information:** There are 4 samples in set 06I-0164-01, 3 samples in set 06I-0180-02 and 3 samples in set 06I-0181-02. The samples were analyzed for cadmium, lead and beryllium on Ghost Wipe. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

**Method Summary:** Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 5 mL of nitric acid and 5 mL of ASTM Type II water. Samples were digested in a hot block set at 110°C for 60 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

**Sample Preparation:** All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

**Holding Times:** The holding times were met for both sample preparation and analysis.

**Instrument Calibration:** Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

**Initial and Continuing Calibration Verification Analysis:** Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

**Initial and Continuing Calibration Blank Analysis:** No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.01 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.07 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 2. ug/sample.

**Method Blank Analysis:** No beryllium, cadmium or lead was found in any of the media blank samples above the Contract Required Detection Limit (CRDL).

**Dilution(s):** None.

**Laboratory Control Sample and Duplicate Analysis:** Two Laboratory Control Samples (LCSs) and two Laboratory Control Sample Duplicates (LCSDs) were prepared and analyzed with the sample batch. The LCS results were within the control limits of +/- 20%. The Relative Percent Difference (RPD) between the LCS and the LCSD were within the control limit of 20%.

**Replicate Analysis:** One sample in this batch was replicated. The RPD between the samples and the replicates was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

**Flagging Codes:** None

**Nonconformance/Corrective Action Report (NC/CAR):** N/A

**Sample Calculation:** The final results are calculated by the following equation:  
Final result for aqueous samples ( $\mu\text{g}/\text{sample}$ ) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ( $\mu\text{g}/\text{L}$ )

B = Concentration factor from sample preparation

=  $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

C = Dilution performed at time of analysis

Example Calculation:  $(1 \mu\text{g}/\text{L}) \times (0.025 \text{ L}/\text{sample}) \times (1) = 0.025 \mu\text{g}/\text{sample}$

**Miscellaneous Comments:** None



## Report Page

Page 4 of 7

Report Identification Number: 06I-0181-02  
Subcontract Number: 0000X-BO-G0058-B-Mod#4  
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby  
Laboratory Identification Number: DCHM  
SAF#: RC-001 / R303M0 J451  
Payroll#: 73513

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium µg/sample		Cadmium µg/sample		Lead µg/sample	
J10RR9	06I01518	18 Jan 2006	<0.01	U	<0.07	U	<2.	U
J10WP2	06I01519	18 Jan 2006	<0.01	U	<0.07	U	<2.	U
J10X05	06I01520	18 Jan 2006	<0.01	U	<0.07	U	<2.	U
Limit of Detection (LOD)			0.01		0.07		2.	
Required Detection Limit (RDL)								

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.



## QC Summary Page

Page 5 of 7

Report Identification Number: 06I-0181-02  
Subcontract Number: 0000X-BO-G0058-B-Mod#4  
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby  
Laboratory Identification Number: DCHM  
SAF: RC-001 / R303M0 J451  
Payroll#: 73513

Batch ID: G060K00K

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-240171-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-240171-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
BL-240171-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
QC-240171-1	LCS	Beryllium	µg/sample	10.8	NA	10.0	108.	NA
QC-240171-1	LCS	Cadmium	µg/sample	32.4	NA	30.0	108.	NA
QC-240171-1	LCS	Lead	µg/sample	102.	NA	100.	102.	NA
QD-240171-1	LCSD	Beryllium	µg/sample	10.8	10.8	10.0	108.	0.483
QD-240171-1	LCSD	Cadmium	µg/sample	32.2	32.4	30.0	107.	0.718
QD-240171-1	LCSD	Lead	µg/sample	102.	102.	100.	102.	0.496

MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

$LCS, LCSD \text{ Percent Rec.} = (\text{Result} / \text{Target}) * 100.0$

$MS, MSD \text{ Percent Rec.} = ((\text{Result} - \text{Parent}) / \text{Target}) * 100.0$

$LCS, LCSD \text{ Relative Percent Diff.} = ( (|LCS - LCSD|) / ((LCS + LCSD)/2.0) ) * 100.$

$MS, MSD \text{ Relative Percent Diff.} = ( (|MS - MSD|) / ((MS + MSD)/2.0) ) * 100.$

$LD \text{ Relative Percent Diff.} = ( (|Parent - LD|) / ((Parent + LD)/2.0) ) * 100$

01-01-01,02



**CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

Collector: <b>Vita D Jones</b>	Company Contact Denise A. Pitts and Henry W. Ruby	Telephone No. 531-1229	Project Coordinator Joan H. Kessner	Data Turnaround  24
Payroll #: <b>73513</b>	Sampling Location <b>300 Area</b>	SPECIAL INSTRUCTIONS All relevant COAs must be provided: <b>R303MO J451</b>		SAF No. RC-001
Type of Sample: <b>Wipes &amp; Airborne</b>	<b>303M Building</b>	ANALYSIS METHOD (SPECIFIC): <b>NIOSH 7300</b>		Method of Shipment <b>FED EX</b>
Shipped To: <b>DataChem Salt Lake City</b>	Wipe Sample Media: Ghost <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Other _____	Bill of Lading/Air Bill No. <b>8541 9337 5330</b>		

POSSIBLE SAMPLE HAZARD/REMARKS Be, Pb, Cd		MATRIX A - AIR WI - WIPE X - OTHER		Preservation (i.e., cooling required, etc.)		No	No	No	No	No	No	No	No	na
Special Handling and/or Storage na														
SAMPLE ANALYSIS						Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne	na
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area ____ cm <sup>2</sup>	Comments										
J10X43	A	1-16-06	NA	Blank	na	X	X						X	na
J10X44	A	1-16-06	NA	Blank	na	X	X						X	na
J10X45	A	1-16-06	854	Personal	na	X	X						X	na
J10RR9	WI	1-16-06	NA	Blank				X	na	X	X			
J10WP2	WI	1-16-06	NA	Blank				X	na	X	X			
J10X05	WI	1-16-06	100cm <sup>2</sup>	10% wipe				X	na	X	X			

Enter on line below the first Sample Number from Page One:

J10x43

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Requisitioned By/Serial <i>[Signature]</i>	DATE / TIME 1500 1-16-06	Received By/Serial <i>[Signature]</i>	DATE / TIME 1500 1-16-06
locked cabinet building 3746 Rm 16		3746 Building, Rm 16, locked cabinet	
Requisitioned By/Serial Golden Maltz Golden Maltz	DATE / TIME 01/17/06 1445	Received By/Serial RZ Steffler R.Z. Steffler	DATE / TIME 1-17-06 1445
RZ Steffler R.Z. Steffler w/H		Fed EX	
Requisitioned By/Serial <i>[Signature]</i>	DATE / TIME 1-17-06 1530	Received By/Serial <i>[Signature]</i>	DATE / TIME 1-17-06 1530
Requisitioned By/Serial <i>[Signature]</i>	DATE / TIME 1-17-06 1530	Received By/Serial <i>[Signature]</i>	DATE / TIME 1-17-06 1530
Requisitioned By/Serial <i>[Signature]</i>	DATE / TIME 1-17-06 1530	Received By/Serial <i>[Signature]</i>	DATE / TIME 1-17-06 1530
Requisitioned By/Serial <i>[Signature]</i>	DATE / TIME 1-17-06 1530	Received By/Serial <i>[Signature]</i>	DATE / TIME 1-17-06 1530
Requisitioned By/Serial <i>[Signature]</i>	DATE / TIME 1-17-06 1530	Received By/Serial <i>[Signature]</i>	DATE / TIME 1-17-06 1530
Requisitioned By/Serial <i>[Signature]</i>	DATE / TIME 1-17-06 1530	Received By/Serial <i>[Signature]</i>	DATE / TIME 1-17-06 1530
Requisitioned By/Serial <i>[Signature]</i>	DATE / TIME 1-17-06 1530	Received By/Serial <i>[Signature]</i>	DATE / TIME 1-17-06 1530
LABORATORY SECTION	Received By <i>[Signature]</i>	Title <i>[Signature]</i>	DATE / TIME 1-17-06 1530

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
PRINT/SIGN NAME



## CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST


[illegible]

- Enter on line below the first Sample Number from Page One:

J10x43

## CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

### SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Street:  K. D. Jones DATE / TIME: 1-16-06 1500 1-16-06 1630	Received By/Street: 3746 Building, Rm 16, locked cabinet DATE / TIME: 1-16-06 1500 1-16-06 1630
Relinquished By/Street: locked cabinet building 3746 Rm #16 Gold Mab Goldie Malhan DATE / TIME: 01/17/06 1445	Received By/Street: RZ Steffler R.Z. Steffler DATE / TIME: 1-17-06 1445
Relinquished By/Street: RZ Steffler R.Z. Steffler DATE / TIME: 1-17-06 1530	Received By/Street: Fed Ex DATE / TIME:
LABORATORY SECTION	Received By _____ Title _____ DATE / TIME _____

COPY

REVIEWED BY: \_\_\_\_\_

PRINT/SIGN NAME

DATE: \_\_\_\_\_